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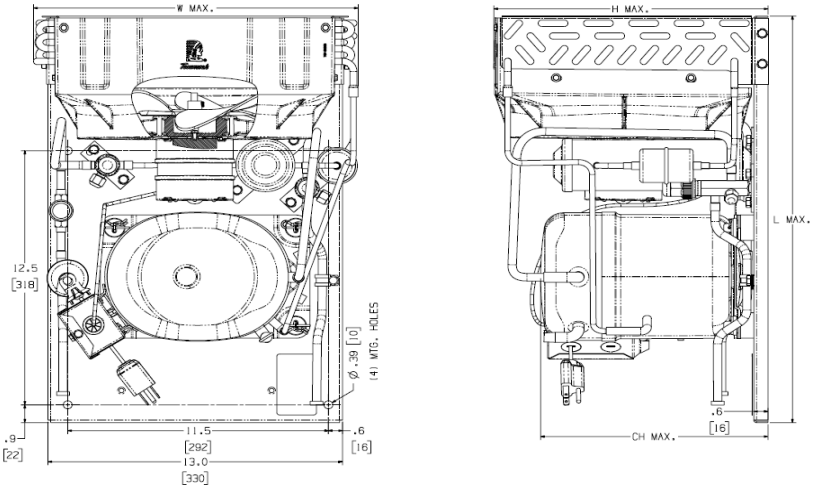
# Celseon® Air Cooled Condensing Unit

**Model: AKA9442ZAAD***
**BoM: 2G212-**  R-404a  1/2 HP**




| Model | Dimensions, inches | | | | Line Connection* | | Pumpdown | Air | Oil Ch | Gr. Wt. |
|---|---|---|---|---|---|---|---|---|---|---|
| | L | W | H | CH | Suction | Liquid | 90 °F 90% | SCFM | Oz. | Lbs. |
| AKA9442ZAADA | 20.0 | 14.3 | 12.1 | 10.1 | 3/8" S | 1/4" S | N/A | 230 | 17 | 53 |
| AKA9442ZAADG | | | | | 3/8" S | 3/8" S | 2.7 lbs | | | 54 |
| AKA9442ZAADH | | | | | 3/8" S | 3/8" S | N/A | | | 53 |
| AKA9442ZAADK | | | | | 3/8" S | 1/4" S | | | | 53 |
| AKA9442ZAADC | | | | | 3/8" S | 3/8" S | 2.7 lbs | | | 54 |
| AKA9442ZAADS | | | | | 3/8" S | 3/8" S | N/A | | | 53 |
| AKA9442ZAADJ | | | | | 3/8" S | 3/8" S | 2.7 lbs | | | 54 |
| AKA9442ZAADP | | | | | 3/8" S | 3/8" S | 2.7 lbs | | | 54 |

* F = Flare, S = Solder, RF or RS = Rotolock with Flare or Solder Connections, C = Compression Fitting
Factory charge: 20 PSIG Nitrogen – **MUST BE EVACUATED**

| | | Ambient Temperatures | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Evaporator T, | | 80°F | | | 90°F | | | 100°F | | | 110°F | | |
| °F | PSIG | BTUH | Watts | Cond T | BTUH | Watts | Cond T | BTUH | Watts | Cond T | BTUH | Watts | Cond T |
| 0 | 33.4 | 3338 | 621 | 98 | 2679 | 574 | 106 | 2070 | 527 | 113 | 1511 | 481 | 121 |
| 5 | 37.6 | 3849 | 683 | 100 | 3169 | 644 | 107 | 2537 | 606 | 115 | 1954 | 567 | 122 |
| 10 | 43.9 | 4373 | 743 | 102 | 3672 | 713 | 109 | 3018 | 682 | 116 | 2411 | 652 | 124 |
| 15 | 49.8 | 4900 | 801 | 104 | 4178 | 779 | 114 | 3501 | 757 | 119 | 2871 | 734 | 126 |
| 20 | 56.1 | 5419 | 858 | 107 | 4237 | 890 | 118 | 3977 | 829 | 121 | 3322 | 814 | 128 |
| 25 | 62.9 | 5916 | 912 | 111 | 5152 | 905 | 119 | 4430 | 899 | 124 | 3751 | 892 | 131 |
| 30 | 70.2 | 6377 | 964 | 115 | 5591 | 956 | 121 | 4846 | 967 | 128 | 4140 | 969 | 135 |
| 35 | 77.9 | 6783 | 1014 | 119 | 5975 | 1023 | 126 | 5204 | 1033 | 132 | 4469 | 1043 | 139 |
| 40 | 87.0 | 7114 | 1061 | 124 | 6282 | 1079 | 131 | 5483 | 1097 | 137 | 4713 | 1115 | 144 |
| 45 | 95.1 | 7345 | 1107 | 130 | 6485 | 1133 | 136 | 5651 | 1159 | 142 | 4858 | 1185 | 149 |
| 50 | 106.2 | 7445 | 1151 | 136 | 6549 | 1184 | 142 | 5667 | 1218 | 148 | 5328 | 1252 | 154 |

**60 Hz Performance**
Return gas temp. 40°F, 5°F sub cooling

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## Specifications/ Parts:

| **Unit Model** | **AKA9442ZAADA** |
|---|---|
| **Unit Bill of Material** | **2G212-09** |
| Refrigeration Range | -10° F to +45° F |
| Design Pressure Low | 181 |
| Design Pressure High | 450 |
| Nominal Volts-Hz-Ph | 115-60-1 |
| Voltage Range | 103-127 |
| Min. Circuit Ampacity | 12.4 |
| Max. Fuse Size (amps) | 20 |
| | |
| Compressor Model | AKA9438ZXA |
| Comp. Bill of Material | AK175AT-037-P2 |
| Compressor RLA/LRA | 9.2/58.8 |
| Overload | External |
| Relay | 82481-1 |
| Run Capacitor | N/A |
| Run Capacitor Rating | N/A |
| Start Capacitor | 85PS125D59 |
| Start Capacitor Rating | 378-440 MFD 125V |
| | |
| Fan Motor | 810-10003 |
| Fan Motor RLA | .85 |
| Fan Blade | 515-10003 |
| Fan Shroud/Guard Combo | 707-00005 |
| Condenser | 506-10008 |
| | |
| Unit Drawing | DGU1970-01 |
| Wiring Diagram | 91266-01 |
| | |
| Replacement Kit: Relay | K71-02 |
| Replacement Kit: O/L | K90-37 |
| | |
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| | |

| **Unit Model** | **AKA9442ZAADG** |
|---|---|
| **Unit Bill of Material** | **2G212-19** |
| Receiver Tank | 510-10000 |
| Liquid Valve | 56630 |
| Suction Valve | 56630 |
| | |
| **Unit Model** | **AKA9442ZAADH** |
| **Unit Bill of Material** | **2G212-29** |
| Liquid Valve | 56630 |
| Suction Valve | 56630 |
| | |
| **Unit Model** | **AKA9442ZAADK** |
| **Unit Bill of Material** | **2G212-39** |
| Power Cord | 85106-14 |
| | |
| **Unit Model** | **AKA9442ZAADC** |
| **Unit Bill of Material** | **2G212-59** |
| Receiver Tank | 510-10000 |
| Liquid Valve | 56630 |
| Suction Valve | 56630 |
| Power Cord | 85106-14 |
| | |
| **Unit Model** | **AKA9442ZAADS** |
| **Unit Bill of Material** | **2G212-69** |
| Liquid Valve | 56630 |
| Suction Valve | 56630 |
| Power Cord | 85106-14 |
| | |
| **Unit Model** | **AKA9442ZAADJ** |
| **Unit Bill of Material** | **2G212-79** |
| Receiver Tank | 510-10000 |
| Liquid Valve | 56630 |
| Suction Valve | 56630 |
| Filter Drier | 71116 |
| Sight Glass | 70084 |
| | |
| **Unit Model** | **AKA9442ZAADP** |
| **Unit Bill of Material** | **2G212-89** |
| Receiver Tank | 510-10000 |
| Liquid Valve | 56630 |
| Suction Valve | 56630 |
| Power Cord | 85106-14 |
| Filter Drier | 71116 |
| Sight Glass | 70084 |

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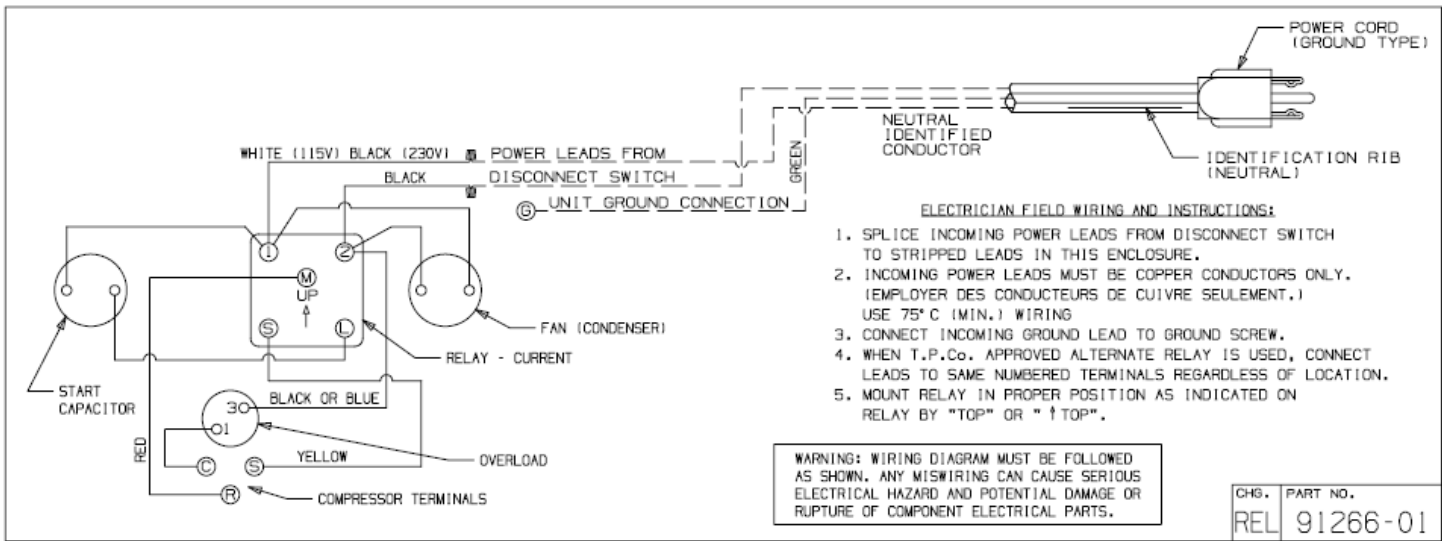
# Electrical Diagram Page 3


POWER CORD
(GROUND TYPE)
NEUTRAL
IDENTIFIED
CONDUCTOR
IDENTIFICATION RIB
(NEUTRAL)
WHITE (115V) BLACK (230V)
POWER LEADS FROM
BLACK
DISCONNECT SWITCH
GREEN
UNIT GROUND CONNECTION
ELECTRICIAN FIELD WIRING AND INSTRUCTIONS:
1. SPLICE INCOMING POWER LEADS FROM DISCONNECT SWITCH TO STRIPPED LEADS IN THIS ENCLOSURE.
2. INCOMING POWER LEADS MUST BE COPPER CONDUCTORS ONLY. (EMPLOYER DES CONDUCTEURS DE CUIVRE SEULEMENT.) USE 75° C (MIN.) WIRING
3. CONNECT INCOMING GROUND LEAD TO GROUND SCREW.
4. WHEN T.P.Co. APPROVED ALTERNATE RELAY IS USED, CONNECT LEADS TO SAME NUMBERED TERMINALS REGARDLESS OF LOCATION.
5. MOUNT RELAY IN PROPER POSITION AS INDICATED ON RELAY BY "TOP" OR "↑TOP".
UP
FAN (CONDENSER)
RELAY - CURRENT
START
CAPACITOR
BLACK OR BLUE
RED
YELLOW
OVERLOAD
COMPRESSOR TERMINALS
WARNING: WIRING DIAGRAM MUST BE FOLLOWED AS SHOWN. ANY MISWIRING CAN CAUSE SERIOUS ELECTRICAL HAZARD AND POTENTIAL DAMAGE OR RUPTURE OF COMPONENT ELECTRICAL PARTS.
CHG.
PART NO.
REL
91266-01